CERTIFICATE OF INSTALLATION		CF2R-MCH-24-H
Forced Air System Airflow Rate - Alternative Compliance		(Page 1 of 2)
Project Name:	Enforcement Agency:	Permit Number:
Dwelling Address:	City	Zip Code

In existing buildings when a refrigerant charge is required the system air flow must be a minimum 300 cfm air flow. The installer is required to correct non-compliant system airflow by performing the remedial actions listed on this form. If after completing the remedial actions listed on this form the system does not meet the minimum 300 cfm air flow the installer may perform a refrigerant charge with a reduced airflow Per RA 3.2.2.7.3

A. System Information

Each system requiring verification must use a separate form.

1.	System Name or Identification/Tag	
2.	System Location or Area Served	

B. Hole for the placement of a Static Pressure Probe (HSPP), and Permanently installed Static Pressure Probe (PSPP) in the supply plenum

All newly installed HVAC systems in new or existing buildings require, HSPP or PSPP. Procedures for installing HSPP and PSPP are described in Reference Residential Appendix RA3.3.1.1. This measure requires verification by a HERS rater. For existing buildings if the system cannot conform to the specifications for hole location in Reference Residential Appendix Figure RA3.3-1 an alternate location for the hole that provides access for making an accurate supply plenum pressure measurement shall be used.

1.	Static Pressure Measurement Method	(Select method from dropdown box)
2.	List Requirements	(Based on Selection above)
3.	By signing this document the installer certifies that the requirements above have been met.	

C. Installer Certifies the Following for Verified System Airflow

1.	The Make and Model of the airflow measurement apparatuses used by the installer is certified with the Energy Commission at http://www.energy.ca.gov/appliances/database/
3.	By signing this document the installer certifies that the requirements above have been met.

D. Alternate Minimum System Airflow Verification

The installer shall attempt to correct non-compliant system airflow by performing the following remedial Per *RA3.2.2.7.3*

	Action Required	Indicate whether the action was completed successfully or was not completed successfully.
1	Determine that the air filter media is clean. If the air filter media is dirty, then replace it with clean filter media.	
2	Open all registers and dampers and remove any obstructions.	
3	Replace/Repair all accessible crushed, blocked, restricted, remove excess length, and sharp bends in ducts. Supported every 4 ft max. with a max. 2 in sag.	
4	Clean the evaporator coil and ensure the coil is not obstructed.	
5	Air handler fan speed set to high and blower wheel is clean.	
6	Replace the return duct with a larger one and/or add a second return duct.	
7	Replace the return filter with a larger area and/or add a second return filter.	
8	If any of the above were not completed list the Action Required and a description of why the action could not be completed:	

E. Verified System Airflow

After all the Required Actions were completed list the results of the cooling coil airflow diagnostic test in the table below. This measure requires verification by a HERS rater.

1.	Method Used to Test Actual Airflow	(Select method - Fan flow meter and plenum pressure matching, Flow Grid, Powered Flow Capture Hood, Powered Flow Capture Hood)	
2.	Cooling Capacity of the installed outdoor Condenser	**Tons**	
3.	Actual Tested Airflow	**CFM**	

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT

1. I certify that this Certificate of Installation documentation is accurate and complete.

Name:	Signature:
Company:	Date:
Address:	CEA or CEPE or HERS Certification # If applicable:
City/State/Zip:	Phone:

RESPONSIBLE PERSON'S DECLARATION STATEMENT

1. I certify under penalty of perjury, under the laws of the State of California, the information provided on this Certificate of Installation is true and correct.
2. I am eligible under Division 3 of the Business and Professions Code to accept responsibility for construction, or an authorized representative of the person responsible for construction (responsible person).
3. I certify that the installed features, materials, components, or manufactured devices identified on this certificate (the installation) conforms to all applicable codes and regulations, and the installation is consistent with the plans and specifications approved by the enforcement agency.
4. I understand that a HERS rater will check the installation to verify compliance, and that if such checking identifies defects, I am required to take corrective action at my expense. I understand that Energy Commission and HERS provider representatives will also perform quality assurance checking of installations, including those approved as part of a sample group but not checked by a HERS rater, and if those installations fail to meet the requirements of such quality assurance checking, the required corrective action and additional checking/testing of other installations in that HERS sample group will be performed at my expense.
5. I reviewed a copy of the Certificate of Compliance (CF1R) approved by the enforcement agency that identifies the specific requirements for the installation. I certify that the requirements detailed on the CF1R that apply to the installation have been met.
6. **I will ensure that a completed, signed copy of this Certificate of Installation shall be posted, or made available with the building permit(s) issued for the building, and made available to the enforcement agency for all applicable inspections. I understand that a signed copy of this Certificate of Installation is required to be included with the documentation the builder provides to the building owner at occupancy.** I will ensure that all Certificates of Installation are registered with a HERS Provider Data Registry for projects that require HERS verification.

Company Name: (Installing Subcontractor or General Contractor or Builder/Owner)

Responsible Person's Name:		Responsible Person's Signature:
CSLB License:	Date Signed:	Position With Company (Title):
Is this installation monitored by a Third Party Quality Control Program (TPQCP)? ☑Yes ☑No		Name of TPQCP (if applicable):

User Instructions for Completing the MECH 24:

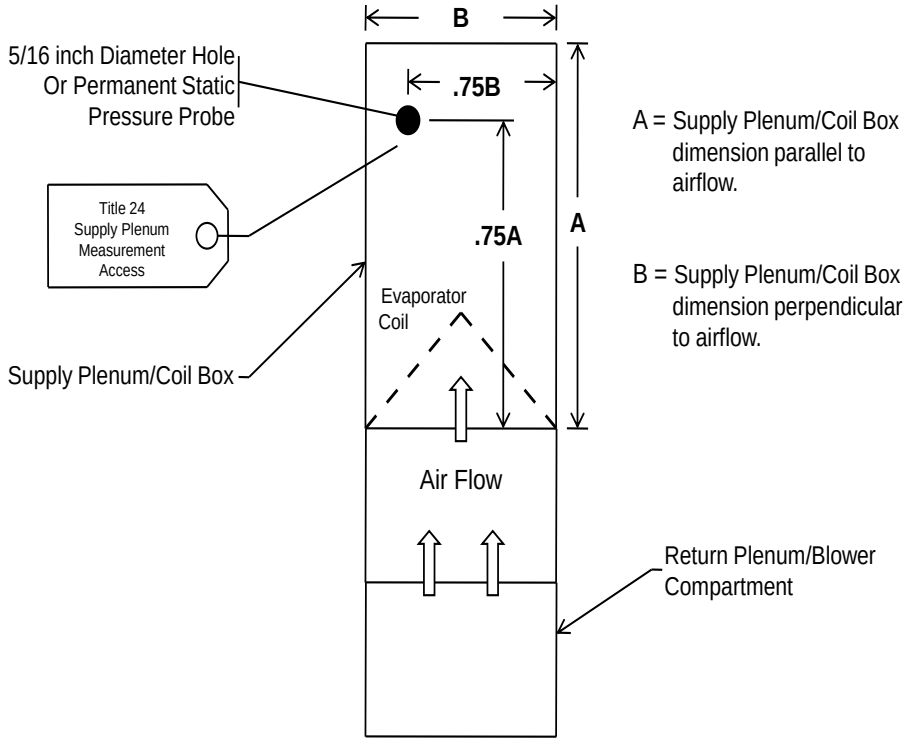
A. System Information

1. System Name or Identification/Tag – Imported from the MECH-04 or entered manually; provide an identification name or tag name that uniquely identifies the duct system. If there is a mechanical plan for the system, the tag name may be given on the plans.
2. System Location or Area Served - Imported from the MECH-04 or entered manually; provide a brief description of the area served by the duct system (e.g. upstairs; downstairs).

B. HSPP or PSPP Verification

1. Select from the following options using a dropdown box, the Static Pressure Measurement Method:
   A. HSPP – Hole Static Pressure Probe
   B. PSPP – Permanente Static Pressure Probe
   C. Alternate Location – alternate location that provides access for making supply plenum pressure measurement
2. Requirements auto filled based on the user selection from #B.1:
   A. If A picked in #B.1 then:
      a. For HSPP a 5/16 inch (8 mm) hole was drilled and placed per Figure RA3.3-1.
      b. The hole has been labeled stating “Title 24 Supply Plenum Measurement Access" in at least 12-point font.
   B. If B picked in #B.1 then:
      a. For PSPP a permanently installed pressure probe was installed per Figure RA3.3-1.
      b. The probe has been labeled stating “Title 24 Supply Plenum Measurement Access" in at least 12-point font.
   C. If C picked in #B.1 then:
      a. For Alternate Locations the system must be in an existing building.
      b. Certify that the hole cannot conform to the specifications per Figure RA3.3-1
      c. A 5/16 inch (8 mm) hole was drilled in an alternate location that provides access for making an accurate supply plenum pressure measurement.
      d. Confirm that the hole has been labeled stating “Title 24 Supply Plenum Measurement Access" in at least 12-point font.
3. Installer certifies that #1 and #2 have been completed.

Figure RA3.3-1.



C. **Installer Certifies the Following for Verified System Airflow**

1. The Make and Model of the airflow measurement apparatuses used by the installer must be certified with the Energy Commission at http://www.energy.ca.gov/appliances/database/

D. Alternate Minimum System Airflow Verification

The installer is required to fix the HVAC system to increase air flow. The installer must make the changes under Action Required when possible. Installer is required to indicate whether the action was completed successfully or was not completed successfully.

1. Replace all filters if dirty.
2. The condition of the ducts has a big impact on the ducts. Crushed, blocked, restricted, loose, sharp bends.

4. Clean the evaporator coil and ensure the coil is not obstructed. Often the coils are plugs with dirt, animal hair etc. and this will significantly reduce the air flow of the system.
5. Air handler fan speed set to high and blower wheel is clean.

Instructions to be completed at a later date.